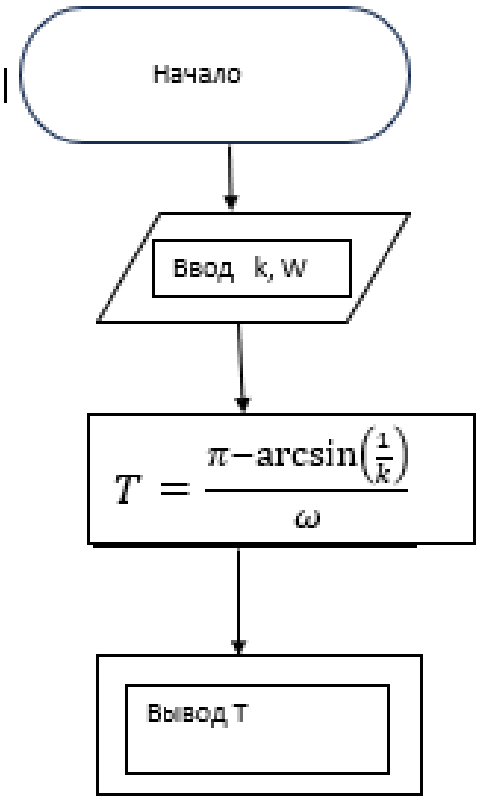
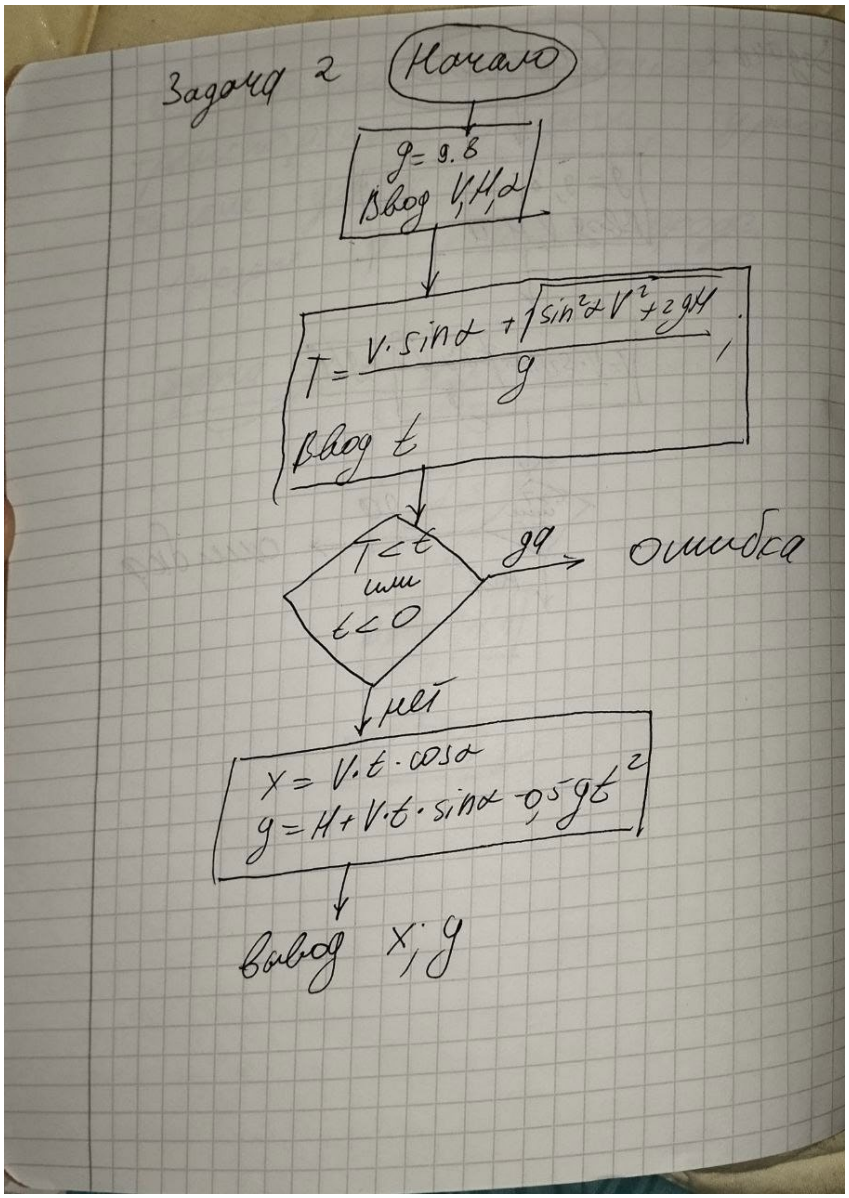
Задача 1



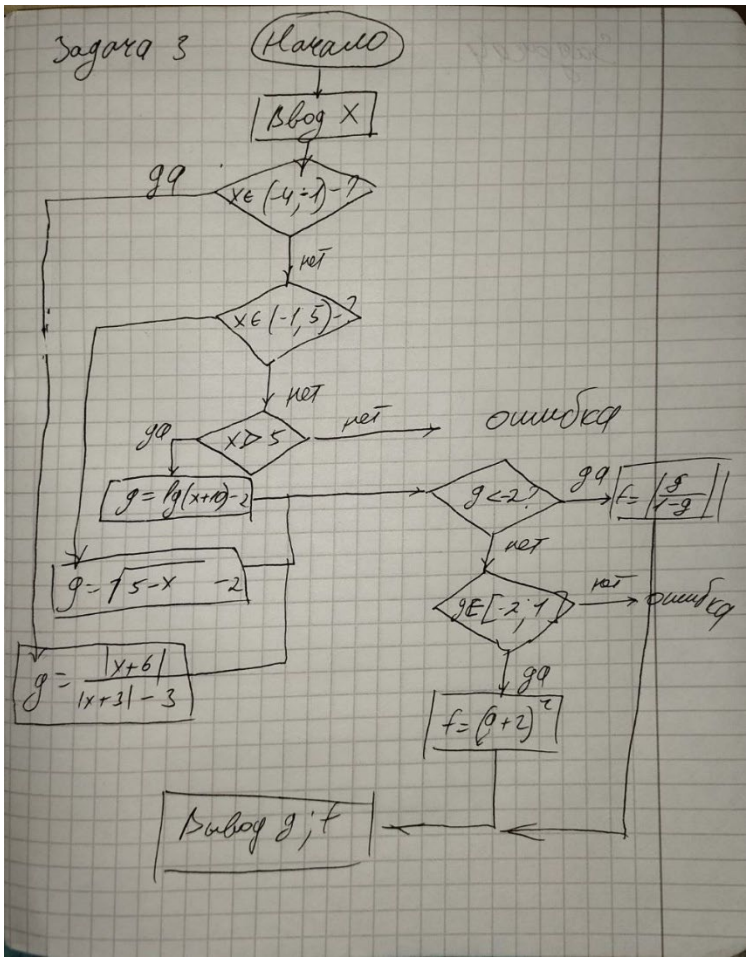

```cpp
#include <iostream>
#include <cmath>
using namespace std;
double T, k, w;
int main() {
cout << "Enter k" << endl;
cin >> k;
if (k < 1 || k == 0) {
    cout << "Error" << endl;
    return 0;
}
else {
cout << "Enter the w" << endl;
cin >> w;
T = ((3.141 - asin(1/k))/w);
cout << " T = " << T << endl;
return 0;
}
```

```
PS C:\C++\Homework\output> & .\'Задача_1.exe'
Enter k
10
Enter the w
20
 T = 0.152042
PS C:\C++\Homework\output> cd 'c:\C++\Homework\output'
PS C:\C++\Homework\output> & .\'Задача_1.exe'
Enter k
2
Enter the w
20
 T = 0.13087
PS C:\C++\Homework\output>
```




```
PS C:\C++\Homework\output> & .\'Задача_2.exe'
Enter Speed (m/s)
20
Enter Height (m)
15
Enter angle (Radians)
0.5
Time of fall is 2.98305s
Enter the time
2.5
Coords of the stone in that moment is: (43.8791m ; 8.34628m)
```

```
PS C:\C++\Homework\output> & .\'Задача_2.exe'
Enter Speed (m/s)
4
Enter Height (m)
2
Enter angle (Radians)
0.3
Time of fall is 0.770784s
Enter the time
0.6
Coords of the stone in that moment is: (2.29281m ; 0.945248m)
```




```
PS C:\C++\Homework\output> & .\'Задача_3.exe'
Enter x:
3
g(x)= -0.585786
f(g(x))= 2
PS C:\C++\Homework\output> cd 'c:\C++\Homewor
PS C:\C++\Homework\output> & .\'Задача_3.exe'
Enter x:
2
g(x)= -0.267949
f(g(x))= 3
```

# Задача 4

```
PS C:\C++\Homework\output> & .\ Задача_4.ex
Enter the cost of goods
14598
Enter product category (A, B or C):
B
Choose your client category:
1-Best
2-Good
3-Medium
4-Bad
1
Choose payment method
1-Cash
2-Check
3-Bank loan
3
Enter the number of payments (1-6)
5
Enter the type of loan
1-Platinum
2-Buisness
2
Final cost of goods is 11282.2
```

```
Enter the cost of goods
20000
Enter product category (A, B or C):
B
Choose your client category:
1-Best
2-Good
3-Medium
4-Bad
1
Choose payment method
1-Cash
2-Check
3-Bank loan
2
Enter the number of contributions

5
Enter the interest rate (3 % - 15 %)
7
Final cost of goods is 14000
PS C:\C++\Homework\output>
```